DAS AUDIO AVANT 12A & 18A

Um… depende del contexto… but not all mid-priced PAs come from China!

Text: **Mark Woods**

D.A.S. Audio is the long-established Spanish company that specialises in amplifiers, speakers and processors for live sound, which aims to provide professional quality products at competitive prices. I'm not sure how much of Spain's manufacturing industry has moved to China in the last 20 years, but it's oddly reassuring to know that D.A.S. Audio equipment still hails from its original point of manufacture.

The Avant 12A is a portable speaker system designed for live applications including front-of-house, music playback, or as a floor monitor. The cabinet contains a 12-inch LF speaker driven by an in-built 500W Class-D amplifier and a neodymium HF compression driver with a two-inch titanium diaphragm driven by a 100W Class-D amplifier. Internal 24-bit DSP regulates performance and provides protection, and the quoted frequency response of the cabinet is 60Hz – 20kHz (–10dB), with a maximum SPL of 133dB at one metre. One interesting feature of this processing is the provision of a noise gate, which silences the system when no signal is present; users of powered systems typically have the amplifiers on and cranked to '11', which causes them to be quite noisy when no audio signal is running through the system.

THE CABINET

On first impression the Avant 12A produces a pleasing sound. The cabinet is made from painted plywood (not plastic) with a steel grille covering the front. The overall look is much better than the common molded polypropylene designs that are beginning to look very last century nowadays. There are two rigging points on the top of the cabinet for installation duties and big carry handles on either side make the 12A easy to lug. Although the speaker can be carried with one hand, it's quite heavy at 22kg so one hand on either side of the cabinet with the front grille against the chest is the easiest way to move it. Speaking of which, the steel grille is not particularly strong; when carrying the speaker against your chest it flexes in and out. I'm not sure what would happen if an excited but un-caring musician stood on it if the speaker was being used as a floor monitor.

The 12A cabinet is five-sided; basically rectangular in shape but with two angled rear panels that allow the speaker to be used as a floor monitor at a pinch. In this position there are protective feet to keep the cabinet surface off the floor, and curiously there are protective feet on both panels making it look like the cabinet can be laid down on either side. In reality, because the controls, inputs and outputs are all located on one of them, if you try to lay it down on that panel with any leads connected, they get squashed. When the cabinet is laid down on the correct side the control panel is perpendicular to the floor making it very easy to see and access the cables.

The rear panel controls and connections offered on the cabinet are fairly no-frills compared to some of the competitors. There's one XLR/Jack combo input and output link, power socket and on/off switch, a non-stepped volume knob, a recessed button to change the frequency response between settings for FOH or monitors, and another recessed button to change the input sensitivity between line and mic levels. As is common with powered speakers, phantom power is not provided. Indicator lights display power on, signal present and limiter active. Personally, I would have liked to see multiple inputs; some speakers of this type offer an RCA input as well as one or more XLRs, as this enables the system to be used without a mixer for DJ applications or by singers who perform with backing music. Stepped volume knobs similarly, wouldn't cost much more but would make it easier to get the same settings for each speaker.

THE 18A SUB

Designed to work with the Avant 12A (or the 10A), the Avant 18A is a powered sub designed to augment the system in situations where more or deeper bass is required. Constructed from the same plywood as the 12A and with a matching

steel grille, the 18A contains a front-mounted 18-inch speaker powered by a 750W in-built Class-D amplifier. The quoted frequency response is 35Hz – 160Hz (–10dB) and maximum level is 133dB at one metre. The 18A is essentially cube shaped, with recessed handles on either side. At nearly 40kgs it's a bit of a beast and takes two people to carry. There's a screw-in pole mount socket on top which accepts the pole that flies the top box.

The rear panel has two XLR-only inputs and outputs, switchable between 'thru' and 'HPF', to provide flexibility when configuring the system. The signal from the mixing console would usually connect to the inputs of the 18A with the outputs feeding the 12As, either full range or with the high-pass filter engaged. This makes it convenient to configure the 12As in stereo whether you're using one sub or two, or connecting several units together. The 18A has no microphone input – for obvious reasons – so if you wish to use the system with a microphone but *without* a mixing console, the microphone would need to be plugged into the 12A and its output fed into the 18A for full-range sound. Also on the rear panel is a knob controlling the sub level and a knob for varying the low-pass crossover frequency between 60Hz and 160Hz (100Hz is the recommended setting). There's a 180-degree phase switch and indicator lights for power, signal and limit.

TESTING, TESTING...

Connecting the Avant system was easy and my first test with the 12A/18A combination was outdoors using a microphone and playing CDs. Usually a system like this would be set-up for either microphone use or with a mixing desk so you wouldn't need to switch the input mic/line level button on the cabinet *while it's turned up*. The button is right next to the FOH/monitor EQ button, and if you press the wrong one by accident – which I did – the resulting 40dB of gain can be quite startling to say the least. Reminding myself not to do that again, I had a good listen to a wide range of music and was generally pleased with the results. The 12A and the 18A are well matched at all volumes and the system had plenty of punch. The high frequency driver in the 12A was a little grainy and lacked some detail up high compared to another powered cabinet I was using for comparison but the overall frequency response was good for music playback. The frequency plot showed a peak around 10kHz and a fairly flat mid-range but in use there was a resonance around 300Hz that was particularly noticeable directly beside or behind the cabinet. The 12As had good depth on their own and the frequency response plot shows a bump of about 10dB at 80 – 100Hz compared to the average level across the midrange. Adding the 18As delivered deep, smooth bass notes, especially fairly close to the cabinets, and reduced the load on the 12As considerably, allowing them to concentrate on the mid/highs. The result was a bigger and louder overall sound. Unfortunately, the automatic noise gate had a habit of opening and closing erratically at the very end of songs with slow fades, and I reckon this feature really should be able to be switched off.

Listening to the A18s on their own revealed some fuzzy low-mid overtones at high volume, even with the crossover set below 100Hz, but they produced a lot of thump around 80Hz and the limiter was effective at keeping them from being overdriven. In a live situations with a drum kit they would no doubt be hitting the limiter on every kick beat but at lower levels they produced a smoother sound, and seemed to reach to deeper frequencies. They would be more than capable as a sub for medium-level music playback or even for adding lows to a studio monitoring system.

Sound-checking with a handheld microphone, the system seemed right at home; the response across the midrange was well-suited to live vocals with a noticeable dip right on 2kHz that helped

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prevent harshness at high levels. The slight lack of high-end detail was not as noticeable with a vocal mic as it was with music playback and vocal peaks were handled easily with low distortion. The noise gate was again noticeable; it was quite easy to hear it fading shut and if there was fair amount of gain on the mic it tended to come in with a rush when it opened again. If the system was being used for a voice-only application this might be annoying. When it was open there was a little audible system noise but no more than other powered systems I've tried and not enough to make the gate essential.

The dispersion of the horn in the A12 is quoted at 80 x 50 degrees and the response is quite even across the front of the speaker with a little extra sharpness on-axis. By undoing four screws on either side of the front grille the horn can be removed and rotated 90 degrees for use in the monitor position. Actually, using the speaker as a floor monitor ultimately became my favourite application for the 12A. With the FOH/monitor EQ button pressed into the monitor position the response is slightly reduced above 1.6kHz and below 200Hz and this balance proved to be just right for a Shure SM58 run flat on the desk channel. Mics with no presence peak still cut through nicely but the slightly brighter Shure Beta 58A was a little brittle. Increasing the level beyond stability produced some glassiness around 4 – 5kHz in the horn and 300Hz wanted to feedback but there was plenty of volume available before this happened.

LIVE ON STAGE

My first real-world live test of the system took place at the Old Hepburn Hotel hosting The Whitetop Mountaineers, an acoustic duo from Virginia. You never know what you're going to get doing live shows and on this occasion the room was full, the band was great, and in hindsight I could have used a much bigger PA. I used a single condenser mic for the opening act, Archer, and the stereo 12A/18A system worked well with his big, strong delivery but for the main act I had to change to close miking the vocals and instruments to get enough gain – there are limits to what you can expect from a small horn and a single12-inch speaker per-side in a room full of people after all! It was a tough test but the 12As just got away with it, which I must say was quite an achievement. There wasn't much low-frequency energy from the band but the 18A subs handled what there was with ease, and for a lot of situations I'd imagine one Avant 18A would be ample in combination with two 12As.

A few days later, Zulya and The Children of the Underground performed their dark traditional Russian music at the Theatre Royal, Castlemaine and in this much larger venue I used the 12As as part of the foldback system. In this application they weren't pushed to the limits and did a great job as floor monitors – easy level, no need for any EQ, an attractive look on stage and compliments from the band. The next week I used a pair of 12As in front of Chris Wilson and Andy Baylor with similarly pleasing results. Quick and easy to set up, the acoustic instruments were detailed and accurate and the speakers maintained their composure during some high-level vocal peaks.

Overall the Avant 12A/18A speakers worked well and they will no doubt find a place in the crowded powered speaker market. Priced in the middle of the range with above average build quality, good looks and convenient operation, they represent good value as a small FOH system for bands, installations or DJs. The 12A also double as a surprisingly good floor monitor, making them versatile enough for venues or hire companies and the 18A could be added to an existing vocal PA or monitoring system needing some solid bottom-end. ■

NEED TO KNOW

Price
Avant 12A: $1986;
18A: $2200

Contact
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Pros
Attractive looks.
Well-matched sub.
Nice price.
12A doubles as a good floor monitor.

Cons
Slightly grainy horn.
Noise gate cannot be bypassed.
Loose low-mids.

Summary
The Avant 12A and 18A are a nice combination for mid-sized PA applications. Competitively priced and capable of working either as a front of house or foldback system, the 12A in particular is well suited to PA hire companies and small bands alike. It's not the loudest PA on the market, nor the most feature packed, but at this price point it's well worth checking out.